UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,363	06/27/2001	David Huo	D HUO 7 (58658)	1700

27871   7590   10/31/2005

BLAKE, CASSELS & GRAYDON LLP
BOX 25, COMMERCE COURT WEST
199 BAY STREET, SUITE 2800
TORONTO, ON M5L 1A9
CANADA

EXAMINER
MURPHY, RHONDA L

ART UNIT	PAPER NUMBER
2667	

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/893,363	HUO, DAVID
	Examiner	Art Unit	
	Rhonda Murphy	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on *12 August 2005*.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-44* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-44* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *22 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   The affidavit filed on August 12, 2005 under 37 CFR 1.131 has been considered

but is ineffective to overcome the 3rd Generation Partnership Project (3GPP) Technical

Specification Group Radio Access Network (2001-03) reference.

2.   The evidence submitted is insufficient to establish a conception of the invention

prior to the effective date of the 3rd Generation Partnership Project (3GPP) Technical

Specification Group Radio Access Network (2001-03) reference. While conception is

the mental part of the inventive act, it must be capable of proof, such as by

demonstrative evidence or by a complete disclosure to another. Conception is more

than a vague idea of how to solve a problem. The requisite means themselves and

their interaction must also be comprehended. See *Mergenthaler v. Scudder*, 1897

C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897). Applicant has failed to show conception of the

invention prior to March 2001. Applicant has provided Exhibits, particularly Exhibit C,

illustrating similar subject matter of the claimed invention, which was submitted to the

3GPP standards group in April 2001. However, dates in which the invention was

conceived prior to March 2001 have not been provided.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed
publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4.   Claims 25, 28 and 30 are rejected under 35 U.S.C. 102(a) as being anticipated

by 3rd Generation Partnership Project (3GPP) - Technical Specification Group Radio

Access Network (Release 1999).

Regarding claims 25 and 30, The 3GPP teaches a Radio Link Control block

comprising: a plurality of Logical Link Control Service Data Unit (SDU) and a data block

header that includes a delimiter as a length indicator (page 12, 3rd paragraph; several

SDUs fit into one PDU and the length indicators are inserted into the beginning of the

PDU. The RLC PDU described in the reference represents the RLC data block in the

instant application and the SDUs described in the reference represents the PDUs in the

instant application) wherein any last SDU of the Radio Link Control data block has no

delimiter (page 24, paragraph 1; there is no LI that indicates the end of the SDU) and

when a last Logical Link Control SDU fills the balance of the Radio Link Control data

block, the length indicator is zero for first length indicator in any next sequence Radio

Link Control block (page 24, paragraph 1; the end of the last segment of an SDU

exactly ends at the end of a PDU...the length indicator shall be placed as the first length

indicator in the following PDU and have a value LI=0).

Regarding claim 28, 3GPP further teaches a data block header including an extension

bit (E) field to indicate the presence of an optional octet in data block header (page 23,

section 9.2.2.5; see Figure 9.3).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1, 5, 7-9, 13, 15-17, 21, 23-24, 31-34, 36-40, and 42-44 are rejected

under 35 U.S.C. 103(a) as being unpatentable over 3GPP in view of Jiang (US

6,687,248).

Regarding claims 1 and 17, 3GPP teaches the same limitations as described above in

claims 25 and 30. 3GPP fails to explicitly disclose the telecommunication devices

utilized in within the telecommunications system.

However, Jiang teaches a telecommunications system comprising: a

telecommunications network device (Fig. 1, base station 10) having a radio interface (it

would be obvious to include a radio interface in wireless communication systems) and a

layered protocol architecture for allowing transfer of upper layer Protocol Data units

using a shared medium between a communications unit and the telecommunications

network device (Fig. 1, base station 10 and mobile unit 20; layers 1-3; col. 1, lines 14-

45), wherein said layered protocol architecture is operative for coding and transferring

Protocol Data Units as a plurality of Radio Link Control data blocks (col. 1, lines 14-60).

In view of this, it would have been obvious to one having ordinary skill in the art

at the time the invention was made, to modify the system of 3GPP, by including the

telecommunication devices to perform the functions associated with transmitting data

using RLC data blocks.

Regarding claims 5, 13 and 21, 3GPP further teaches a data block header including

an extension bit (E) field to indicate the presence of an optional octet in data block

header (page 23, section 9.2.2.5; see Figure 9.3).

Regarding claims 7, 15, 23, 34 and 40, 3GPP teaches a communication system, but

fails to explicitly teach a mobile unit. However, Jiang teaches a communication unit

comprising at least one mobile unit (Fig. 1, mobile unit 20).

In view of this, it would have been obvious to one having ordinary skill in the art

at the time the invention was made, to modify the system of 3GPP, by including a

mobile unit, in order to receive data blocks from a network device.

Regarding claims 8, 16, 24, 33 and 39, 3GPP teaches a communication system, but

fails to explicitly teach a base station. However, Jiang teaches a telecommunications

network device comprising a base station (Fig. 1, base station 10).

In view of this, it would have been obvious to one having ordinary skill in the art

at the time the invention was made, to modify the system of 3GPP, by including a base

station, in order to transmit data blocks to a communications unit.

Regarding claim 9, 3GPP and Jiang teach the same limitations as described above in

claims 1 and 17. Additionally, 3GPP teaches a plurality of RLC data blocks each

containing octets numbered from 1 to N (Figs. 9.2 and 9.3, page 20) and each carrying

a plurality of Logical Link Control Protocol Data Units (LLC PDU) having user data or

upper layers' signaling data (Fig. 9.2 and 9.3 illustrate the PDUs containing user data); a

data block header that includes a delimiter as a length indicator given in an octet (page

12, paragraph 3; and page 23, section 9.2.2.8; several SDUs fit into one PDU and the

length indicators are inserted into the beginning of the PDU; Figure 9.2 and 9.3 show

the length indicators in an octet). Furthermore, it would have been obvious to one

having ordinary skill in the art at the time the invention was made, to modify the system

of 3GPP and Jiang to include a plurality of telecommunication network devices and

communication units, in order to provide service connections to multiple users.

Regarding claims 31, 37 and 43, 3GPP and Jiang teach the same limitations as

described above in claims 1 and 17. Additionally, Jiang teaches a layered protocol

architecture with at least an upper layer and lower layer (Fig. 1, layers 1-3); and a

plurality of upper layer Protocol Data Units delimited into a lower layer protocol payload

(col. 1, lines 27-34).

In view of this, it would have been obvious to one having ordinary skill in the art

at the time the invention was made, to modify the system of 3GPP, by delimiting upper

layer PDUs into a lower layer protocol payload, in order to transmit data blocks between

devices in the most efficient method.

Regarding claims 32 and 38, It would have been obvious to one having ordinary skill

in the art at the time the invention was made, to include a radio interface as the

interface of the telecommunications network device, since wireless communication

systems utilize radio interfaces as a communication means between devices.

Regarding claims 36, 42 and 44, 3GPP teaches a layered architecture, but fails to

disclose contiguous layers. However, Jiang teaches contiguous upper and lower layers

within the layered architecture (Fig. 1, layers 1-3; col. 1, 27-34).

In view of this, it would have been obvious to one having ordinary skill in the art

at the time the invention was made, to modify the system of 3GPP, by including

contiguous upper and lower layers, so as to directly transfer data between the layers.

7.   Claims 2, 10, 18, 35 and 41 are rejected under 35 U.S.C. 103(a) as being

unpatentable over 3GPP and Jiang as applied to claim 1 above, and further in view of

Lee et al. (US 2002/0001296).

Regarding claims 2, 10, 18, 35 and 41, 3GPP teaches at least one packet data

physical channel through which Protocol Data Units are transferred (page 10, section

4.2.1.1). 3GPP fails to explicitly disclose a radio resource sub-layer.

However, Lee teaches a layered protocol architecture (Fig. 8) comprising a radio

resource sub-layer (Fig. 8, RRC protocol) for managing the at least one packet data

physical channel (Fig. 8, PDSCH) and managing Radio Link Control and Medium

Access Control on the packet data physical channels (page 5, paragraphs 87-88).

8.   Claims 3-4, 6, 11-12, 14, 19-20 and 22 are rejected under 35 U.S.C. 103(a) as

being unpatentable over 3GPP and Jiang as applied to claim 1 above, and further in

view of Ravishankar et al. (US 6,778,509).

Regarding claims 3, 11 and 19, 3GPP teaches an RLC data block comprising a header. 3GPP fails to disclose a final block indicator in a data block header.

However, Ravishankar teaches a data block header including a final block indicator (FBI) field to indicate whether the Radio Link Control data block is the last data block of a Temporary Block Flow (Fig. 7A, FBI 701g).

In view of this, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify the system of 3GPP, to include a final block indicator in order to determine the final block of the data being transferred.

Regarding claims 4, 12 and 20, 3GPP fails to explicitly teach a downlink Radio Link Control data block. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to include a downlink RLC data block, in order to transmit data across a radio interface in a downlink channel, from one wireless device to another.

Regarding claims 6, 14 and 22, 3GPP teaches an RLC data block comprising a header. 3GPP fails to disclose a More bit (M) field in a data block header.

However, Ravishankar teaches a data block header including a More bit (M) field to indicate when another Logical Link Control Protocol Data Unit follows the current one within a Radio Link Control data block (Fig. 7B, CV 703f; col. 12, lines 18-21).

In view of this, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify the system of 3GPP, to include a More bit field in order to indicate whether more data blocks are pending.

9.   Claims 26, 27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable

over 3GPP, in view of Ravishankar et al. (US 6,778,509).

Regarding claim 26, 3GPP teaches an RLC data block comprising a header. 3GPP

fails to disclose a final block indicator in a data block header.

However, Ravishankar teaches a data block header including a final block

indicator (FBI) field to indicate whether the Radio Link Control data block is the last data

block of a Temporary Block Flow (Fig. 7A, FBI 701g).

In view of this, it would have been obvious to one having ordinary skill in the art

at the time the invention was made, to modify the system of 3GPP, to include a final

block indicator in order to determine the final block of the data being transferred.

Regarding claim 27, 3GPP fails to explicitly teach a downlink Radio Link Control data

block. However, it would have been obvious to one having ordinary skill in the art at the

time the invention was made, to include a downlink RLC data block, in order to transmit

data across a radio interface in a downlink channel, from one wireless device to

another. .

Regarding claim 29, 3GPP teaches an RLC data block comprising a header. 3GPP

fails to disclose a More bit (M) field in a data block header.

However, Ravishankar teaches a data block header including a More bit (M) field

to indicate when another Logical Link Control Protocol Data Unit follows the current one

within a Radio Link Control data block (Fig. 7B, CV 703f; col. 12, lines 18-21).

In view of this, it would have been obvious to one having ordinary skill in the art

at the time the invention was made, to modify the system of 3GPP, to include a More bit

field in order to indicate whether more data blocks are pending.

Conclusion

3.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Rhonda Murphy whose telephone number is (571) 272-

3185. The examiner can normally be reached on Monday - Friday 8:00 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Rhonda Murphy
Examiner
Art Unit 2667

rlm

CHI PHAM
SUPERVISORY PATENT EXAMIN'
TECHNOLOGY CENTER 266   6/28/05